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REMARKS

Claims 1-4, 6-11, 14, 16-19 and 21 are pending. Claim 11 had been withdrawn from consideration as being drawn to a non-elected claim. Claims 19 and 21 are currently canceled, without prejudice. The present Action was made Final.

The Office Action has rejected claims 1-4, 6-11, 14, 16 and 17 under 35 U.S.C. §103(a) as allegedly being unpatentable over Chen *et al.* (WO 02/02279) in view of Grumbine *et al.* (U.S. Patent Application 20030194959). The Office Action States that Chen *et al.* fail to teach a specific void volume, or a specific average groove width of the first, or second, or the combination of first and second grooves. The Office Action relies on Grumbine *et al.* to provide the teaching of a polishing pad having a void volume of between 25% and 50%. The Office Action asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the Chen *et al.* pad with the claimed void volume as taught by Grumbine *et al.*, to allow polishing solution to be transported across the pad, as is known in the art.

Applicants respectfully disagree. As is well-settled, in order to establish a prima facie case of obviousness, three basic criteria must be met: (a) there must be some suggestion or motivation to modify the reference or to combine reference teachings, (b) there must be a reasonable expectation of success, and (c) the combination of the prior art references must teach or suggest all the claim limitations. See e.g., M.P.E.P. § 2143 (8th edition as revised August 2005). The only mention of a void volume of between 25% and 50% in the Grumbine *et al.* reference is in the Background of the Invention section and refers to the teaching of U.S. Patents 6,062,968 and 6,126,532. Neither of these references provides any teaching of grooves or of using void volume to allow polishing solution to be transported across the pad. Therefore, a person of skill in the art, when confronted with the same problem as the applicant and with no knowledge of the present invention, would not have been motivated to select the element of void volume from the Grumbine *et al.* reference for combination in the manner claimed. The Grumbine *et al.* reference fails to motivate or suggest the combination, provides no reasonable expectation of success, and if combined with Chen *et al.* does not teach or suggest all the claim limitations. Therefore, the rejection of claims 1-4, 6-11, 14, 16 and 17 under 35 U.S.C. §103(a) is improper and should be withdrawn.

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The Office Action has rejected claims 18-21 under 35 U.S.C. §103(a) as allegedly being unpatentable over Chen *et al.* in view of Grumbine *et al.*, as applied to claim 1 and further in view of Wadensweiler *et al.* (U.S. 6,841,057). The Office Action states that Chen *et al.* as modified by Grumbine *et al.* does not disclose that the polishing pad comprises abrasive, or that the body of the polishing pad is conductive, comprising conductive elements or a conductive polymer. The Office Action states that Wadensweiler *et al.* teach that it is known to make polishing pads abrasive, that when used with a polishing medium, facilitates material removal from the substrate. The Office Action asserts that it would have been obvious to one of ordinary skill in the art to have provided Chen *et al.* with the abrasive taught by Wadensweiler *et al.* to facilitate material removal from the substrate. The Office Action further asserts that based on the teachings of Wadensweiler *et al.*, it would have been obvious to one of ordinary skill in the art to have made the pad of Chen *et al.* conductive though the use of conductive elements or conductive polymer, to allow the pad to be used in eCMP of the substrate, to remove material that is difficult to remove through CMP.

The applicants respectfully disagree. The deficiencies of the Chen *et al.* and Grumbine *et al.* references were discussed previously. The Office Action has referenced column 17, lines 44-60 as providing teaching of abrasives contained in the body of the polishing pad. The reference, however, describes a polishing station wherein the polishing pad is part of a chemical-mechanical polishing station, not electrochemical-mechanical polishing. This polishing station 904 is separate from the processing cell 902 (Figure 9), where electrochemical-mechanical polishing takes place. The processing cell 902 is stated to be generally similar to the processing cell 100 (Figure 1). The polishing station 904 teaches a platen that supports a polishing material 912 (Figure 9). Wadensweiler *et al.* state "(t)he polishing material 912 may be a conventional polishing pad for example, a sheet of polyurethane and/or polyurethane mixed with fillers, such as those generally commercially *(sic)*, or a polishing web of material comprising a plurality of abrasive elements suspended in a polymer binder tensioned between rollers disposed on either side of the platen 910." (emphasis added) Thus, the only teaching to abrasives in this Wadensweiler *et al.* reference is to an abrasive sheet functioning as a belt pad, not a polishing pad. Assuming *arguendo* that the deficiencies in Chen *et al.* and Grumbine *et al.* did not exist, one of skill in the art would not have been motivated to combine the pad of the prior art with the teaching of

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Wadensweiler *et al.* because there is no commonality of purpose. One of ordinary skill in the art cannot simply take various components and combine them without a commonality of purpose or characteristics that gives the artisan some reasonable expectation of success.

To expedite prosecution, claims 19 and 21 are canceled without prejudice. Claim 20 was previously canceled and is not currently pending. Therefore the rejection of claims 18, 19 and 21 under 35 U.S.C. §103(a) are invalid and should be withdrawn.

Entry of the above remarks and amendments is respectfully requested under 37 CFR §1.116. In view of the above remarks and amendments, reconsideration and allowance is respectfully requested. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at the number listed.

Respectfully submitted,

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